

ABSTRACT OF THE DISCLOSURE

Disclosed are a RF signal detecting apparatus of a liquid crystal display and a detecting method using the same. The RF signal detecting apparatus of liquid crystal display for receiving a RF signal emitted from a pen input device and thus detecting a horizontal position and a vertical position when inputting by pen comprises, a liquid crystal panel displaying images according to a liquid crystal driving signal, a plurality of gate lines driven by the liquid crystal driving signal and at the same time receiving RF signals emitted from the pen input device, a plurality of source lines driven by the liquid crystal driving signal and at the same time receiving RF signals emitted from the pen input device, a first signal detecting means for detecting a RF signal corresponding to a horizontal position from the RF signal received through the plurality of source lines, a second signal detecting means for detecting a RF signal corresponding to a vertical position from the RF signal received through the plurality of gate lines, and a location calculating means for calculating a horizontal position and a vertical position when inputting by pen from the RF signals detected by the first and second signal detecting means, wherein the first signal detecting means is located within a corresponding source driver IC, and

the second signal detecting means is located within a corresponding gate driver IC.